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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/788,317	02/16/2001	Scott R. Shell	60001.39US01	7047

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MERCHANT & GOULD
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER

MOSLEHI, FARHOOD

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 05/27/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/788,317

Applicant(s)

SHELL ET AL.

Examiner

Farhood Moslehi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 17-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 17-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-14 and 17-32 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-14 and 17-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Mathis (6,269,254).

4. As per claim 1, Mathis clearly shows an abstraction layer for interfacing a computer to a telephony radio, comprising:

A set of application programming interfaces (APIs) for abstracting out multiple radio technologies without knowledge of the telephony radio or cellular network, wherein the set of APIs correspond to call control functions, wherein when one of the set of APIs is called, the abstraction layer determines at least one standard telephony radio command corresponding to the called API and sends the telephony radio command to the telephony radio, and wherein the abstraction layer comprises a proxy layer and a driver layer. (e.g. col. 1, lines 1-15 and lines 43-46).

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5. As per claim 2, Mathis clearly shows the abstraction layer wherein the telephony radio is one of a plurality of telephony radios which operates based on the standard telephony radio commands (e.g. col. 2, lines 37-43).

6. As per claim 3, the abstraction layer wherein the set of APIs further correspond to short messaging system functions (e.g. col. 9, line 29).

7. As per claim 4, Mathis shows the abstraction layer wherein the set of APIs further correspond to network service functions (e.g. col. 10, lines 1-17).

8. As per claim 5, Mathis shows the abstraction layer wherein the set of APIs further correspond to data connection functions (e.g. col. 9, lines 42-45).

9. As per claim 6, Mathis shows the abstraction layer wherein the set of APIs further correspond to interface functions (e.g. col. 9, lines 15-23).

10. As per claim 7, Mathis shows a radio interface layer of a telephone for facilitating communications between an application program module and a radio, comprising:

A proxy layer for communicating with the application program and a driver, wherein the application program calls an API to perform a particular function and wherein the proxy layer transforms the API to an input/output control (IOCTL) code and sends the IOCTL to the driver layer (e.g. Figure 8, the Java RUN-TIME machine acts as a proxy layer in this model); and wherein the driver layer communicates with the proxy layer and the radio, the driver layer receiving an IOCTL code and transforming the IOCTL code into a command understood by the radio to perform the particular function (e.g. Figure 7, and TABLE 3).

11. As per claim 9, it is rejected for similar reasons as stated above.

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12. As per claim 8, Mathis shows the radio interface layer wherein the driver layer further receives communications from the radio indicating that the particular function has been performed and wherein the driver layer sends a success code to the proxy layer indicating that the particular function has been performed (e.g. col. 11, lines 5-29).

13. As per claim 10, Mathis shows the method wherein the command is an AT command (e.g. col. 3, lines 45-60. since the system is compatible with the GSM protocol, and AT commands are part of GSM, then it is inherent for the system to include the AT commands).

14. As per claim 11, Mathis shows the method wherein the command is one of a private API set defined by the radio manufacturer (e.g. col. 2, lines 10-22).

15. As per claim 12, Mathis clearly shows the method further comprising the step of generating in the RIL driver layer a unique ID associated with the RIL API (e.g. col. 4, line 58-60).

16. As per claim 13, Mathis shows the method further comprising the step of waiting for a response from the radio, and when received, calling back the calling application with the response and the unique ID returned from the call (e.g. col. 8, lines 58-65).

17. As per claim 14, Mathis shows the method wherein the RIL driver matches the response from the radio with the unique ID and the RIL driver sends the response to the calling process via a callback function (e.g. col. 10, lines 1-18).

18. As per claim 17, Mathis shows a method of communicating between a module and a radio comprising:

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- a) Generating a RIL API call at one of a plurality of modules to perform a specific action (e.g. col. 3, lines 45-53);
- b) Sending the RIL API call to a proxy (e.g. Figure 8);
- c) At the proxy, converting the RIL API call to a command understood by a radio driver (e.g. col. 8, lines 40-43);
- d) Transmitting the radio driver command from the proxy to the radio driver (e.g. col. 8, lines 35-44);
- e) transmitting a radio command from the radio driver to the radio (e.g. col. 8, lines 30-35);
- f) Performing the specific action at the radio (e.g. col. 8, lines 35-44).

19. As per claim 20, it is rejected for the similar reasons (part a and b) as stated above.

20. As per claim 18, Mathis clearly shows the method further comprising:

- g) In response to successfully performing the specific action, sending a success code from the driver to the proxy and from the proxy to the one of the plurality of modules that generated the RIL API (e.g. Table 2).

21. As per claim 19, Mathis shows the method wherein the RIL API, command and success code are associated with an identifier linking them together and linking them to the one of the plurality of modules that generated the RIL API call and wherein the radio driver receives the success code, and, using the identifier, matches the success code with the one of the plurality of modules that generated the RIL API call and sends the

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success code to the one of the plurality of modules that generated the RIL API call (e.g. col. 6, lines 55-67 and col. 10, lines 1-18).

22. As per claim 21, Mathis shows the method further comprising the step of:

j) Sending the notification from the radio driver to one of the plurality of modules (e.g.

Figure 1, the transceiver software receives and sends radio signals to different components of the network).

23. As per claim 22, it is rejected for similar reasons as stated above.

24. As per claim 23, Mathis clearly shows the method wherein the data that needs to be reported comprises an incoming phone call to the radio (e.g. col. 1, lines 47-64).

25. As per claim 24, Mathis shows the method wherein the data that needs to be reported comprises a signal strength change in the radio (e.g. col. 3, lines 28-41, the DSP detects changes and report the changes in signal strength characteristics).

26. As per claim 25, Mathis shows the method wherein the one of a plurality of modules is a TSP (e.g. col. 3, lines 60-63, JTAPI is another implementation of TAPI supported by most TAPI Service Providers).

27. As per claim 26, Mathis shows the method wherein the one of a plurality of modules is a SIM manager (The underlying operating system of JTAPI is JAVA, and it is inherent to the JAVA technology to create, access and manage SIM manager modules along with other modules that are utilized for telephony and browsing purposes).

28. As per claim 27, Mathis clearly shows the method wherein the one of a plurality of modules is an emergency application for generating emergency calls (e.g. col. 7, lines 25-27).

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29. As per claim 28, Mathis shows the method wherein the one of a plurality of modules is a WAP layer (e.g. Figures 7 and 8, WAP layer allows access to the data stack, in figure 7, the JAVA RMI accomplishes the same task).

30. As per claim 29, it is rejected for similar reason as stated above.

31. As per claim 30, it is rejected for similar reasons as stated above.

32. As per claim 31, Mathis clearly shows the method wherein the one of a plurality of modules is connected to an application program module and receives instructions from the application program module to generate the RIL API call (e.g. Abstract).

33. As per claim 32, it is rejected for similar reasons as stated above.

34. Applicant's arguments filed March-17-2004 have been fully considered but are not persuasive.

35. In the remarks, applicants argued in substance that (1) Mathis does not teach, suggest, or describe, "a set of application programming interfaces (APIs) for abstracting out multiple radio technologies without knowledge of the telephony radio or cellular network" or "wherein the abstraction layer comprises a proxy layer and a driver layer."

36. As to point (1) Mathis shows the use of JTAPI class which provides a set of APIs for abstracting out multiple radio technologies (e.g. col. 1, lines 50-60). Furthermore Mathis discusses that applications written using JTAPI are portable across various computer platforms and telephone systems (e.g. col. 1, lines 60-64).

37. In the remarks, applicants argued in substance that (2) Mathis does not teach, suggest, or describe "abstracting out multiple radio technologies without knowledge of the telephony radio or cellular network"

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38. As to point (2) Mathis discusses that the core API is surrounded by extensions that are portable between different platforms (e.g. col. 1, lines 60-65).

39. In the remarks, applicants argued in substance that (3) Mathis does not teach, suggest, or describe an abstraction layer that comprises “ a proxy layer and a driver layer”.

40. As to point (3) Mathis describes the architecture of the JTAPI which includes a proxy “server” and an underlying driver (e.g. col. 12, lines 30-41).

41. In the remarks, applicants argued in substance that (4) Mathis does not teach, suggest or describe a proxy layer and a driver layer, “wherein the proxy layer transforms the API to an input/output control (IOCTL) code and sends the IOCTR code to the driver layer, and wherein the driver layer communicates with the proxy layer and the radio.

42. As to point (4) Mathis teaches the interaction between the transceiver software and the microprocessor which inherently has to go through a driver. Furthermore, the IOCTL functions are performed by the CSPMI layer (e.g. col. 3, lines 18-27).

43. In remarks, applicants argued in substance that (5) Mathis does not teach, suggest or describe translating the IOCTL codes to a command corresponding to the action, wherein command will be understood by the radio, and sending the command to the radio.

44. As to point (5) the examiner disagrees because it the job of the transceiver software to interpret the commands and send them to the RF hardware for radio communications (e.g. col. 3, lines 5-27).

Conclusion

45. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farhood Moslehi whose telephone number is 703-305-8646. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 703-305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

fm

 JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100